





Product type designation	Product designation			Power contactor
Number of poles         Nr.         3           Rated insulation voltage Ui IEC/EN         V         690           Rated insulation voltage Uimp         kV         6           Operational frequency         min         Hz         25           max         Hz         400         400           IEC Conventional free air thermal current Ith         A         32           Operational current Ie         AC-1 (≤40°C)         A         32           AC-1 (≤55°C)         A         26         AC-1 (≤70°C)         A         23           AC-3 (≤400°V ≤55°C)         A         25         AC-4 (4000°V)         A         10           Rated operational power AC-3 (T≤55°C)         230V         kW         7         400V         kW         12           440V         kW         12.5         415V         kW         13.4         440V         kW         13.4           440V         kW         13.4         440V         kW         13.4         440V         kW         13.4           400V         kW         15         690V         kW         15         690V         kW         12         400V         kW         21         500V         kW         22	., .			BF25
Rated insulation voltage Ui IEC/EN         V         690           Rated impulse withstand voltage Uimp         kV         6           Operational frequency         min         Hz         25           max         Hz         400         400           IEC Conventional free air thermal current Ith         A         32           Operational current le         AC-1 (≤40°C)         A         23           AC-1 (≤57°C)         A         26         AC-1 (≤70°C)         A         23           AC-3 (≤440V ≤55°C)         A         25         AC-4 (400V)         A         10           Rated operational power AC-3 (T≤55°C)         230V         kW         7         400V         kW         12.5           415V         kW         12.5         415V         kW         13.4         500V         kW         13.4           690V         kW         15         690V         kW         15         690V         kW         11           Rated operational power AC-1 (T≤40°C)         230V         kW         12         400V         kW         12         400V         kW         12         400V         kW         12         400V         kW         23         400V         kW			.,	•
Rated impulse withstand voltage Uimp				
Time and Property Property of the property				
Min			kV	6
EC Conventional free air thermal current lth	Operational frequency			
EC Conventional free air thermal current lth				
Operational current le       AC-1 (≤40°C) A 22 AC-1 (≤55°C) A 26 AC-1 (≤55°C) A 26 AC-1 (≤55°C) A 23 AC-3 (≤440V ≤55°C) A 25 AC-4 (400V) A 10         Rated operational power AC-3 (T≤55°C)       230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 440V kW 13.4 440V kW 13.4 500V kW 15 690V kW 15 690V kW 15 690V kW 21 500V kW 26 690V kW 36         IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series       ≤24V A 20 48V A 18 110V A 6 220V A -         IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series       ≤24V A 23 48V A 23 75V A 23 110V A 16 220V A 1         IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series       ≤24V A 23 48V A 23 75V A 23 48V A 23 75V A		max		
AC-1 (≤40°C) A 32 AC-1 (≤55°C) A 26 AC-1 (≤75°C) A 23 AC-3 (≤440V ≤55°C) A 25 AC-4 (400V) A 10  Rated operational power AC-3 (T≤55°C)  230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 11  Rated operational power AC-1 (T≤40°C)  230V kW 12 400V kW 21 500V kW 21 500V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 20 48V A 18 75V A 18 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 23 110V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 23 48V A 23 75V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			A	32
AC-1 (<555°C)	Operational current le			
AC-1 (≤70°C) A 23 AC-3 (≤440V ≤55°C) A 25 AC-4 (400V) A 10  Rated operational power AC-3 (T≤55°C)  230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 15 690V kW 11  Rated operational power AC-1 (T≤40°C)  230V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 20 48V A 18 75V A 18 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 23 110V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		•		
AC-3 (≤440V ≤55°C) A 25 AC-4 (400V) A 10  Rated operational power AC-3 (T≤55°C)  Rated operational power AC-3 (T≤55°C)  230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 11  Rated operational power AC-1 (T≤40°C)  230V kW 11  Rated operational power AC-1 (T≤40°C)  230V kW 12 400V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 20 48V A 18 75V A 18 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 23 110V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 23 48V A 23 75V A 23 110V A 16 220V A 1		•		
AC-4 (400V) A 10  Rated operational power AC-3 (T≤55°C)  230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 11  Rated operational power AC-1 (T≤40°C)  230V kW 12 400V kW 21 500V kW 21 500V kW 21 500V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 20 48V A 18 75V A 18 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series				
Rated operational power AC-3 (T≤55°C)  230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 15 690V kW 11  Rated operational power AC-1 (T≤40°C)  230V kW 21 500V kW 21 500V kW 21 500V kW 21 500V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  \$\frac{224V A 20}{48V A 18} \frac{23}{48V A 23} \frac{23}{110V A 16} \frac{220V A 1}{220V A 1}  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  \$\frac{24V A 23}{48V A 23} \frac{23}{110V A 16} \frac{220V A 1}{220V A 1}  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  \$\frac{24V A 23}{48V A 23} \frac{23}{110V A 16} \frac{220V A 1}{220V A 1}  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		,		
230V   kW   7   400V   kW   12.5   415V   kW   13.4   440V   kW   13.4   440V   kW   13.4   500V   kW   15   690V   kW   11   11   11   12   12   13   14   14   15   14   15   15   15   15		AC-4 (400V)	A	10
400V   kW   12.5     415V   kW   13.4     440V   kW   13.4     440V   kW   13.4     500V   kW   15     690V   kW   11     Rated operational power AC-1 (T≤40°C)     230V   kW   12     400V   kW   21     500V   kW   26     690V   kW   36     IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series     ≤24V   A   20     48V   A   18     75V   A   18     110V   A   6     220V   A   -     IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series     ≤24V   A   23     48V   A   23     75V   A   23     110V   A   16     220V   A   1     IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series     ≤24V   A   23     48V   A   23     75V   A   23     48V   A   23     75V   A   23	Rated operational power AC-3 (T≤55°C)			
415V kW 13.4   440V kW 13.4   500V kW 15   500V kW 15   690V kW 11   1   1   1   1   1   1   1   1   1				
A40V   kW   13.4     500V   kW   15     690V   kW   11     Rated operational power AC-1 (T≤40°C)     230V   kW   12     400V   kW   21     500V   kW   26     690V   kW   36     IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series				
Soov   kW   15   690V   kW   11				
Rated operational power AC-1 (T≤40°C)   230V   kW   12   400V   kW   21   500V   kW   26   690V   kW   36				
Rated operational power AC-1 (T≤40°C)  230V kW 12 400V kW 21 500V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 20 48V A 18 75V A 18 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 23 110V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 23 75V A 23 110V A 16 220V A 1				
230V   kW   12   400V   kW   21   500V   kW   26   690V   kW   36		690V	kW	
400V   kW   21   500V   kW   26   690V   kW   36     IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series   ≤24V   A   20   48V   A   18   75V   A   18   110V   A   6   220V   A   −     IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series   ≤24V   A   23   48V   A   23   75V   A   23   110V   A   16   220V   A   1     IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series   ≤24V   A   23   48V   A   23   75V   A   23	Rated operational power AC-1 (T≤40°C)			
500V   kW   26   690V   kW   36				
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series				
Section   Sec				
		690V	kVV	36
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
T5V   A   18   110V   A   6   220V   A   -				
110V   A   6   220V   A   −				
EC max current le in DC1 with L/R ≤ 1ms with 2 poles in series   ≤24V				
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 23 110V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 23 48V A 23 48V A 23 75V A 23				6
	150	220V	A	
48V A 23 75V A 23 110V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 23 48V A 23 75V A 23 75V A 23	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series		_	
220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 23 48V A 23 75V A 23				
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 23  48V A 23  75V A 23				
≤24V A 23 48V A 23 75V A 23	150	220V	Α	
48V A 23 75V A 23	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		_	
75V A 23				
110V A 18				
		110V	Α	18





	220V	Α	12
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
The max carron to in Boo Boo with Ent = Tome with 1 poles in conce	≤24V	Α	15
	48V	A	13
	75V	A	13
	110V	A	2
150	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	.0.0.4		4.0
	≤24V	Α	18
	48V	Α	18
	75V	Α	16
	110V	Α	10
	220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	22
	48V	Α	22
	75V	Α	18
	110V	Α	15
	220V	Α	8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
The max carrent to in 200 200 mai 2/( = 10me mai ) poise in come	≤24V	Α	_
	48V	A	_
	75V	A	_
	110V	A	_
	220V		_
Chart time allowable assurant for 40a (IEC/ENCO047.4)	220 V	A	200
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200
Protection fuse	0 (150)		
	gG (IEC)	Α	50
	aM (IEC)	Α	25
Making capacity (RMS value)		Α	250
Breaking capacity at voltage			
	440V	Α	200
	500V	Α	184
	690V	Α	102
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
· · · · · · · · · · · · · · · · · · ·	Ith	W	2.6
	AC-3	W	1.6
Tightening torque for terminals			
G G I I I I I I I I I I I I I I I I I I	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	1.1
		Ibin	1.5
Tightoning torque for coil terminal	max	וווטו	1.0
Tightening torque for coil terminal	t. ·	N I	0.0
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8





-		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AMO (14			
	AWG/Kcmil			4.0
	Florible wie land on distance atting	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	1 6
	Flexible c/w lug conductor section	IIIax	111111	U
	r lexible 6/W lug corrudetor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			<u> </u>
		min	mm²	1
		max	mm²	4
Power terminal protect	ction according to IEC/EN 60520			IP20 when
	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
Weight				35mm 500
Conductor section			g	500
Conductor Section	AWG/kcmil conductor section			
	AVVG/RCITIII COTIQUCTOT Section	max		10
Auxiliary contact char	acteristics	max		10
Thermal current Ith	2010/101100		Α	10
IEC/EN 60947-5-1 de	esignation			A600 - P600
120,211 000 17 0 1 00	ongriation			
	<del>-</del>			
Operating current AC	<del>-</del>	230V	А	3
	<del>-</del>	230V 400V	A A	3 1.9
Operating current AC	15			
	15	400V	Α	1.9
Operating current AC	15	400V	Α	1.9
Operating current AC	15	400V 500V 110V	A A	1.9 1.4 5.7
Operating current AC	15	400V 500V 110V 24V	A A A	1.9 1.4 5.7 5.7
Operating current AC Operating current DC	15	400V 500V 110V 24V 48V	A A A A	1.9 1.4 5.7 5.7 2.9
Operating current AC	15	400V 500V 110V 24V 48V 60V	A A A A A	1.9 1.4 5.7 5.7 2.9 2.3
Operating current AC	15	400V 500V 110V 24V 48V 60V 110V	A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25
Operating current AC	15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current AC	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Operating current AC  Operating current DC  Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current AC  Operating current DC  Operating current DC  Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current AC  Operating current DC  Operating current DC  Operating current DC  Operating current DC  Mechanical life	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current AC  Operating current DC  Operating current DC  Operating current DC  Operations  Mechanical life  Electrical life	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current AC  Operating current DC  Operating current DC  Operating current DC  Operations  Mechanical life  Electrical life  Safety related data	212	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current AC  Operating current DC  Operating current DC  Operating current DC  Operations  Mechanical life  Electrical life  Safety related data	15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current AC  Operating current DC  Operating current DC  Operating current DC  Operations  Mechanical life  Electrical life  Safety related data	10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current AC  Operating current DC  Operating current DC  Operating current DC  Operations  Mechanical life  Electrical life  Safety related data  Performance level B	115 112 113 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000 1200000 20000000
Operating current AC  Operating current DC  Operating current DC  Operating current DC  Operations  Mechanical life  Electrical life  Safety related data  Performance level B	10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000 12000000 20000000 yes
Operating current AC  Operating current DC  Operating current DC  Operating current DC  Operations  Mechanical life  Electrical life  Safety related data  Performance level B	115 112 113 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000 1200000 20000000





## AC operating voltage

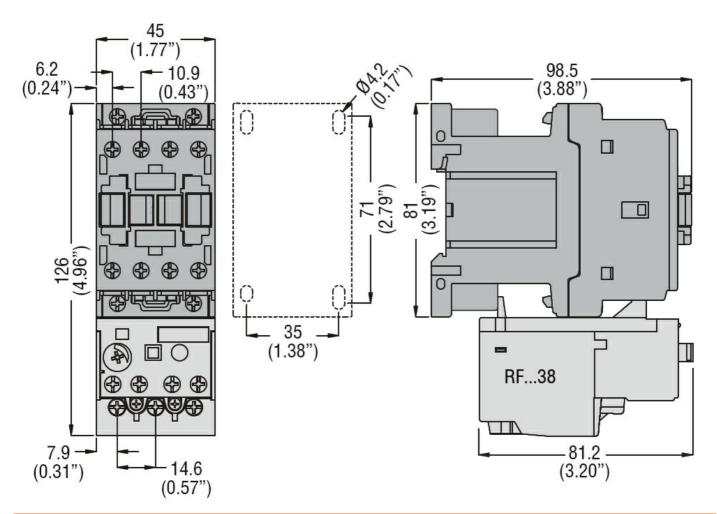
of 50/60Hz coil powered at 50Hz drop-out

	G. Gp. Gu.	max	%Us	55
DC coil operating				
DC rated control voltage			V	48
DC operating voltage				
р	ick-up		0/11-	0.0
		min	%Us	80
	man aut	max	%Us	110
a	rop-out	min	%Us	10
		max	%Us %Us	40
Average coil consumption	n <20°C	IIIax	/603	40
Average con consumption	1-20 0	in-rush	W	2.4
		holding	W	2.4
Max cycles frequency		nording		2
Mechanical operation			cycles/h	3600
Operating times			, ,	
Average time for Us contr	rol			
_	n AC			
	Closing NO			
	-	min	ms	8
		max	ms	24
	Opening NO			
		min	ms	10
		max	ms	20
	Closing NC			
		min	ms	14
		max	ms	28
	Opening NC			_
		min	ms	7
<del>.</del>	. 00	max	ms	18
ır	n DC			
	Closing NO	min	mo	75
		max	ms ms	75 91
	Opening NO	IIIax	1115	91
	Ореніні ў МО	min	ms	15
		max	ms	19
	Closing NC	max	5	. •
	5.559 . 10	min	ms	24
		max	ms	30
	Opening NC			
		min	ms	67
		max	ms	81
UL technical data				
Full-load current (FLA) for	r three-phase AC motor			
		at 480V	Α	21
-		at 600V	Α	17
Yielded mechanical perfo			·	
fo	or single-phase AC motor			
		440/4001/	ЦD	2
		110/120V 230V	HP HP	2

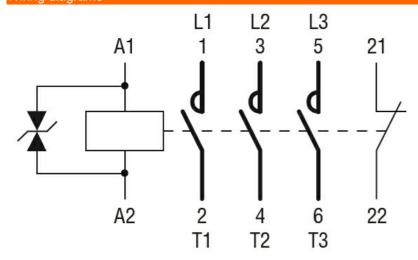




	for three-phase AC motor			
		200/208V	HP	7.5
		220/230V	HP	7.5
		460/480V	HP	15
		575/600V	HP	15
General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
		AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protecti	on fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	100
Contact rating of aux	kiliary contacts according to UL			A600 - P600
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protect	ction			
Pollution degree				3
Dimensions				



## Wiring diagrams



## Certifications and compliance

## Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

#### Certificates



## BF2501L048

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL LOW CONSUMPTION, 48VDC, 1NC AUXILIARY CONTACT

CCC	
cULus	
EAC	

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching